

REMARKS

This Amendment accompanies a Request for Continued Examination. Applicants acknowledge with appreciation that the After Final Amendment of February 24, 2005 has been entered into the record. Claims 1-17 and 32-35 remain rejected.

No claims are amended in response to the present Official Action. Claims 36-38 have been added. Basis is provided in the published application at Paragraph [0021] for claims 36 and 37 and at Paragraph [0141] and FIG. 10 for claim 38.

In view of the following remarks in response to the Official Action, favorable reconsideration is respectfully requested.

Rejections under 35 USC 103(a)

Claims 1-9, 11-14 and 17 remain rejected under 35 USC 103(a) as being unpatentable over Cook in view of Fowler and further in view of Campbell.

The rejection of the claims is respectfully traversed. For the reasons discussed hereinafter, it is respectfully submitted that claims 1-9, 11-14 and 17 are patentable over the prior art. Further, it is respectfully submitted that claims 1-17 and 32-38 are patentable over the prior art.

Cook (the 1° reference) and Fowler (the 2° reference) have previously been and continue to be the basis for all of the rejections of the claims.

Hence, this rejection, as well as all of the other rejections of record, is based on the combination of Cook and Fowler for their teachings of "balloon composite material."

The arguments for the patentability of the claims submitted previously are neither withdrawn nor abandoned.

Applicants, in the previous Amendment, argued that the Examiner's combination of Cook and Fowler in such fashion as to "replace" the fabric structure of Cook with the fabric structure of Fowler was legally improper and would constitute reversible error in a legal proceeding. In support, Applicants cited MPEP 2143.01 entitled "THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE", and *In re*

Ratti cited therein, which held that the rejected claims at issue were not *prima facie* obvious on the basis that:

“ The suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate...(emphasis added)”

According to the Examiner in the Advisory Action, “...while replacement of the fabric structure of Cook with that of Fowler et al. necessarily results in a change in the fabric structure of Cook, the ‘basic principle under which the Cook construction was designed to operate’ remains unchanged. The ‘basic principle under which the Cook construction was designed to operate’ is the expansion of the fabric in the circumferential direction that does not require a decrease in the length of the balloon...’Fowler et al teach that when the longitudinal yarn is a non-stretch yarn, the tube expands radially [circumferentially] but expands much less or not at all in the axial (i.e. longitudinal) direction’...’ both [Cook and Fowler et al] teach a cylindrical fabric structure that perform an equivalent mechanical function’, “i.e. the tubular fabric structures of neither Cook nor Fowler et al. change substantially in length while being expanded in the radial direction. The ‘basic principle’ under which the Cook and Fowler et al. constructions were designed to operate are therefore the same, and consequently, replacement of the fabric structure of Cook with that of Fowler et al. does not change the ‘basic principle under which the Cook construction was designed to operate’ (emphasis supplied).”

In Summary, it is the Examiner’s position that Cook and Fowler were designed to operate in the same fashion and that therefore replacement of the structure of Cook with that of Fowler does not change the “basic principle” under which Cook was designed to operate.

Cook and Fowler Operate Differently

For the following reasons, it is respectfully submitted that the “basic principle” under which the Cook and Fowler constructions were designed to operate are NOT the same.

By design, the Cook fabric "is capable of expanding three-dimensionally such that an increase in diameter does not **require** a decrease in length of the balloon" [col. 3: lines 53ff of Cook]. The "basic principle" under which the fabric was designed allows the fabric to **increase** in length while being expanded in the radial direction. The Fowler construction, to the contrary, was designed to allow the fabric to **maintain constant** length ("not change substantially in length") thereby having a "uni-directional" recovery force" [col. 1: lines 53ff of Fowler]. This is clearly a different "basic principle" of design between Cook and Fowler.

The Cook fabric in the fully expanded configuration consists of a network of yarns with interlacing segments in **both** the longitudinal and circumferential directions [Figure 4], which are comprised of **colinear** hard and elastic components. It is clear from the construction that this fabric has had to expand in both the longitudinal and circumferential directions to accommodate stresses in those directions generated by the balloon inflation. The hard yarn component provides the desirable "hard stop" inflation characteristic. When the pressure is released, the Cook fabric will contract in **both** directions due to the elastic component in the constituent yarns in both directions. To accommodate its "excess length", the hard yarn component will buckle, loop or otherwise assume a non-colinear configuration with the elastic yarns forming an undesirably high profile fabric sleeve. Since the Fowler fabric consists of a network of elastic yarns in one direction and hard yarns in the other, it will expand only in the direction of the elastic yarns (as the internal bladder is filled). As contents of the contained bladder are released, the fabric will contract in the desired unidirectional fashion. Since the elastic and hard yarns are **perpendicular** to each other, there is no change in fabric dimension in the hard yarn direction and no "excess length" generated during contraction.

Upon inflation and deflation, Cook changes dimensions in both (longitudinal and circumferential) directions. By way of comparison, Fowler changes in only one direction.

It is therefore respectfully submitted that the proposed replacement of the Cook structure with the Fowler structure WILL result in a change in the

“basic principle” under which the Cook construction was designed to operate. Accordingly, pursuant to the holding in *In re Ratti*, the claims of the present invention are patentable over the prior art of record.

It is therefore respectfully submitted that claims 1-9, 11-14 and 17 are patentable over the prior art. The Examiner is kindly requested to reconsider and withdraw the rejection.

It is also respectfully submitted that claims 10, 15, 16, and 32-35 are patentable over the prior art rejections at Paragraphs 6-9 of the Official Action of November 30, 2004, for the reasons discussed above with respect to the rejection of claims 1-9, 11-14, and 17.

Furthermore, there is no teaching or suggestion in the prior art wherein the tubular elastic fabric structure has a thickness of less than about 0.25 mm., as called for by claim 36.

There is no teaching or suggestion in the prior art wherein the tubular elastic fabric structure has a diameter of less than about 1.3 mm., as called for by claim 37.

And there is no teaching or suggestion in the prior art wherein the tubular elastic fabric structure can withstand at least 2 atmospheres of internal pressure, as called for by claim 38.

In view of the above, the Examiner is kindly requested to favorably reconsider and grant an Allowance of claims 1-17 and 32-38.

Should the Examiner believe that an interview or other action in Applicants' behalf would expedite prosecution of the application, the Examiner is kindly requested to contact Applicants' attorney by telephone at (302) 992-3219.

Respectfully submitted,

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